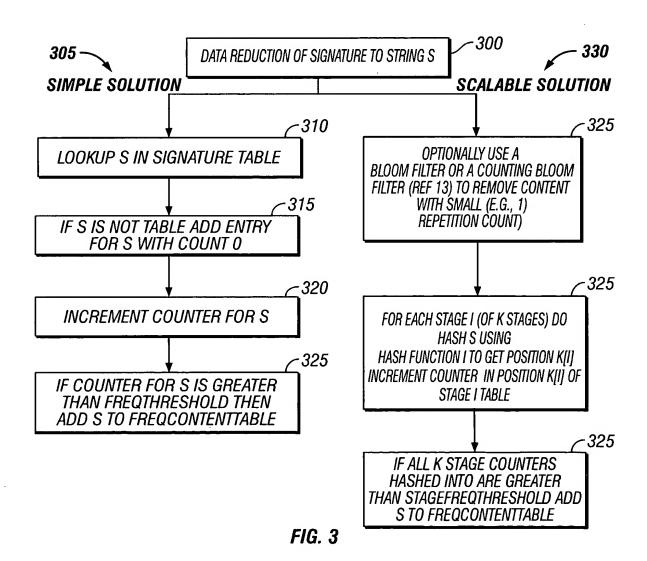


FIG. 1





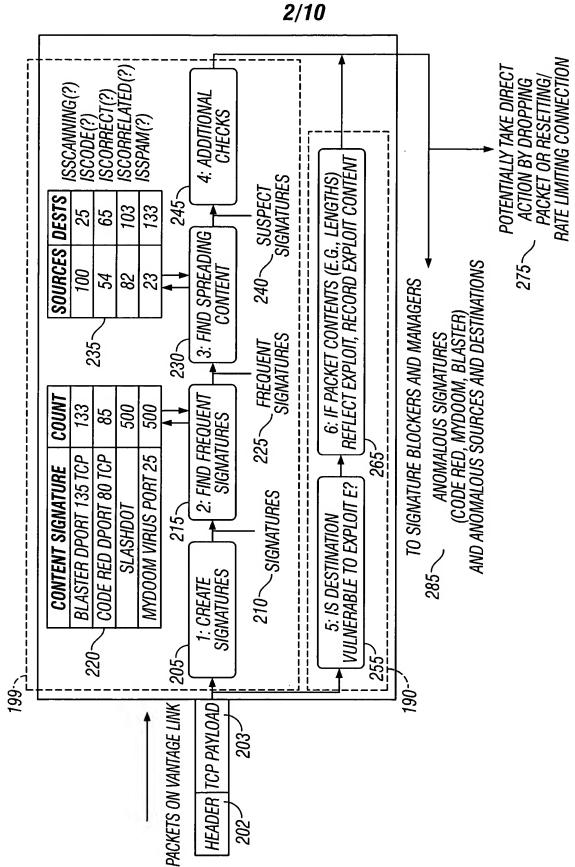
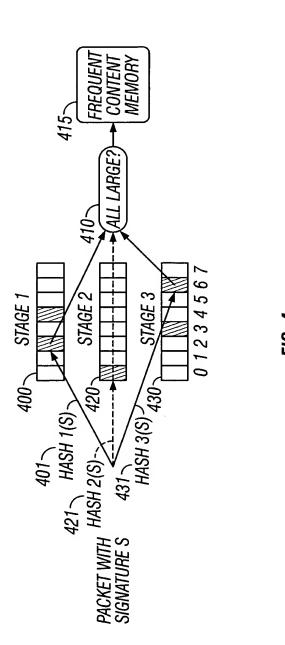


FIG. 2



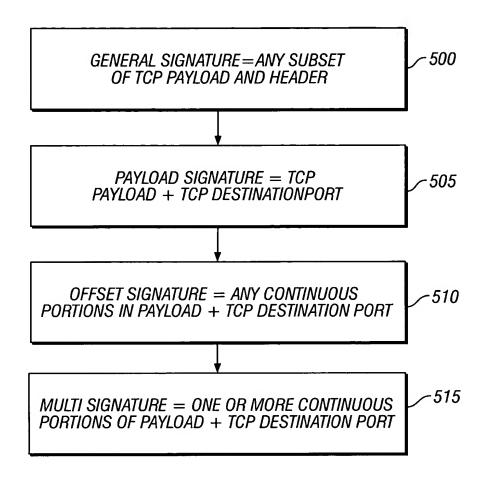


FIG. 5

WHEN STRING S IS ADDED TO FREQ CONTENT TABLE

INITIALIZE SCURCEBITMAP AND DSTBITMAP TO ZEROES AND SOURCESCALE TO S THRESBITS AND DESTSCALE TO DTHRESH BITS

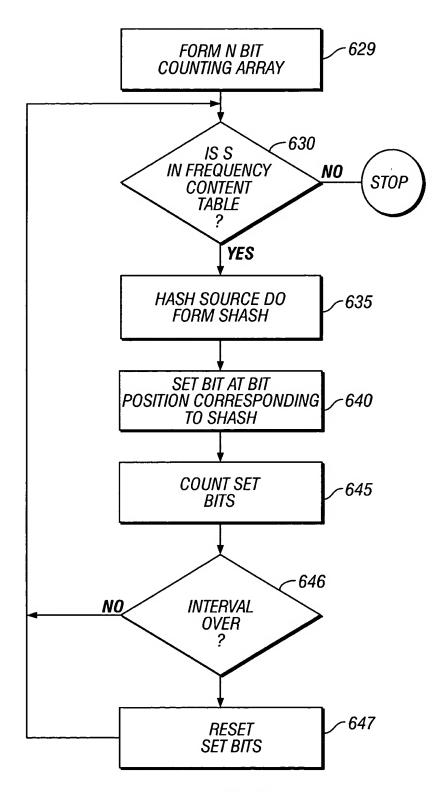


FIG. 6B

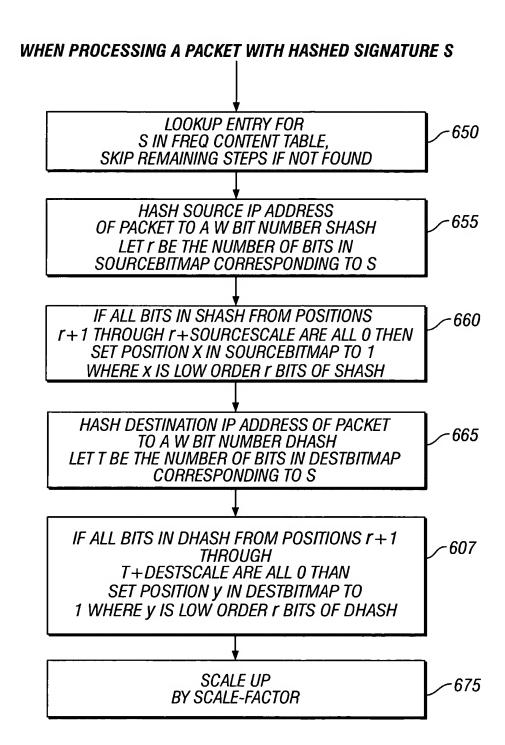
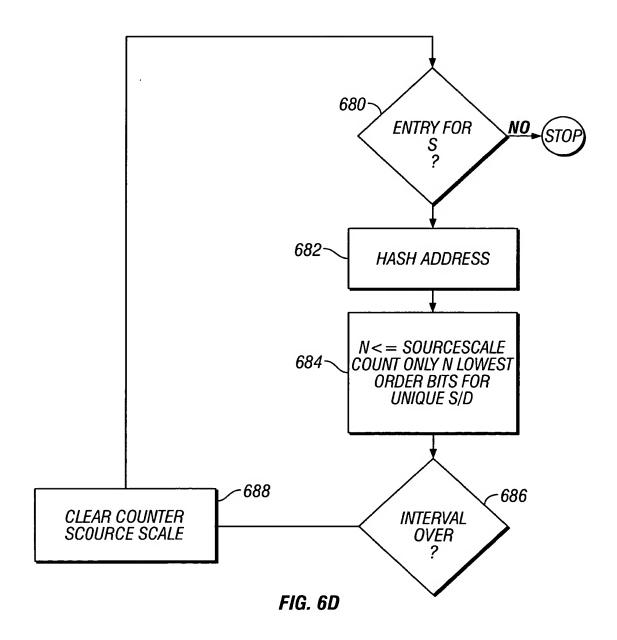


FIG. 6C

7/10



8/10 TEST FOR CONTENT THAT SCANS

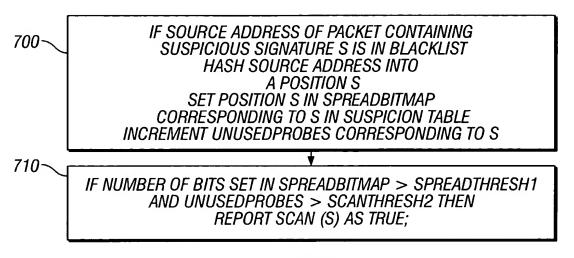


FIG. 7

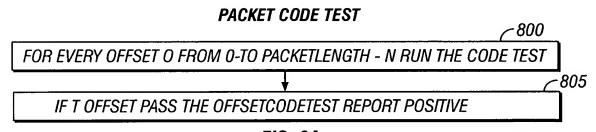


FIG. 8A

IENGTH TESTED = 0 REPEAT UNTIL LENGTH > N LOOKUP BYTE AT OFFSET 0+LENGTH IN OPCODETABLE (S) IF OPCODETABLE SAYS INVALID REPORT "CODE TEST FAILED" AND EXIT IF OPCODETABLE ENTRY IS VALID INCREMENT LENGTHTESTED BY OP CODE TABLE ENTRY LENGTH VALUE 850 855 866 867 870

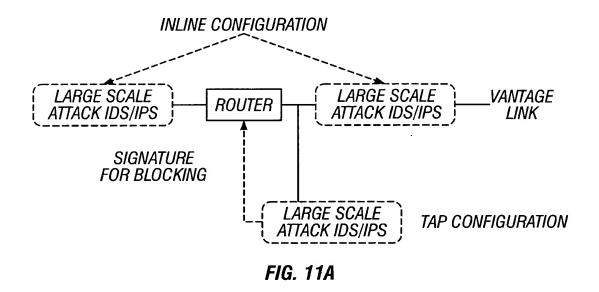
FIG. 8B

WHEN STRING S IS ADDED TO FREQCONTENTIABLE 905 \ INITIALIZE SOURCECORBIT MAP AND DSTCORBITMAP TO ZEROES WHEN PROCESSING A PACKET WITH HASHED SIGNATURE S 910~ LOOKUP ENTRY FOR S IN FREQCONTENTIABLE. SKIP REMAINING STEPS IF NOT FOUND 915-HASH SOURCE IP ADDRESS OF PACKET TO A W BIT NUMBER SHASH LET r BE THE NUMBER OF BITS IN SOURCECORBITMAP CORRESPONDING TO S 920-IF ALL BITS IN SHASH FROM POSITIONS r+1 AND HIGHER ARE ALL O THEN SET POSITION X IN SOURCECORBITMAP TO 1 WHERE X IS LOW ORDER r BITS OF SHASH 925 -HASH DESTINATION IP ADDRESS OF PACKET TO A W BIT NUMBER DHASH LET T BE THE NUMBER OF BITS IN DESTCOBITMAP CORRESPONDING TO S 930 -IF ALL BITS IN D HASH FORM POSITIONS r+1 AND HIGHER ARE ALL O THEN SET POSITION Y IN DESTCORBITMAP TO 1 WHERE Y IS LOW ORDER T BITS OF DHASH 935 > IF THE NUMBER OF COMMON BIT POSITIONS IN SRCCORBITMAP FOR THIS INTERVAL AND THE DSTCORBITMAP FOR LAST INTERVAL IS > CORTHRESHOLD, THEN S PASSES THE CORRELATION TEST AT END OF INTERVAL FOR EVERY SUSPICIOUS SIGNATURE S 940 >

LOG SRCCORBITMAP AND DSTCORBITMAP
INITIALIZE SOURCECORBITMAP AND DSTCORBITMAP TO ZEROES

IF SIGNATURE S PASSES A BAYESIAN SPAM TEST THEN REPORT THAT S PASSES THE SPAM TEST

FIG. 10



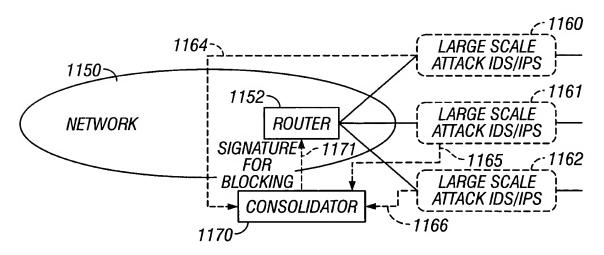


FIG. 11B